Report of Results: MVA5394

Analysis of Settled Dust Atascadero State Hospital

Prepared for:

State of California **Dept of General Services** Seismic & Special Programs 707 West 3rd St. West Sacramento, CA 95605

Respectfully Submitted by:

Tim B. Vander Wood, Ph.D.

Executive Director

MVA Scientific Consultants 3300 Breckinridge Boulevard Suite 400

Duluth, GA 30096

30 August 2007



Report of Results: MVA5394

Analysis of Settled Dust - Atascadero State Hospital

Introduction

On 1 August 2007, we received five settled dust samples from Clark Sief Clark, reportedly collected from Atascadero State Hospital, NTA Bldg. We were asked to determine the asbestos levels in the dust and possible sources for the asbestos. Upon receipt, the samples were assigned MVA Scientific Consultants laboratory identification numbers as follows:

Sample ID	Sample Description	MVA Number
32VA	NTA Bldg. Hatch 32, return air plenum, surface	S0934
33VA	NTA Bldg. North Hallway between 29 & 30,	
34VA	return air plenum, surface NTA Bldg. Main Hallway West next to Rm 38,	S0935
051/4	return air plenum, surface	S0936
35VA	NTA Bldg. Hallway between 17 & 18, return air plenum, surface	S0937
36VA	NTA Bldg. Hallway across from Rm 22,	
	return air plenum, surface	S0938

All analyses were carried out in our laboratory during the period 1 August through 30 August 2007.

Methods

The samples were analyzed according to ASTM Method D5755-03 using either a Philips model EM420 or a Philips model CM120 transmission electron microscope (TEM), equipped with an Oxford INCA energy dispersive x-ray spectrometer (EDS). Additional analyses for dust constituents that might serve as source indicators were also conducted by TEM/EDS.

Results and Discussion

The results of analysis for these samples are presented in Table 1. The Appendix contains a summary of the analytical results, the laboratory count sheets, and images and EDS spectra of typical asbestos fibers found in these samples. Also contained in the appendix are images and spectra showing vermiculite associated with chrysotile fibers and other asbestiform amphibole minerals typical of those known as "Libby



amphibole" and observed as contaminants in vermiculite from the Libby, Montana vermiculite mine operated by W.R. Grace.

Conclusions

Dust analyzed in this study contains elevated levels of chrysotile asbestos. Portions of the dust are consistent with derivation from a chrysotile/vermiculite bearing fireproofing. Asbestiform amphibole consistent with "Libby amphibole" was also found, indicating that the vermiculite in this dust originated at least in part at W.R. Grace's Libby vermiculite mine.

Table 1. Asbestos Concentration in Settled Dust Samples

_	Sample ID	MVA Number	Asbestos Str/cm ²
	32VA	S0934	4,605,333
	- 33VA	S0935	2,651,556
	34VA	S0936	3,488,889
	35VA	S0937	27,911,111
	36VA	S0938	13,955,556

Chain of Custody-TEM Micro-Vacuum

Jormal (48hr)	Water
_	Bulk
One Day (24hr)	Surface
Same Day	Air
Requested TAT (Circle One)	Analysis Type (Circle One)

7.00

	10/16/07 Page 4 of 40
Total Pages Type of Analysis	
6	
Page # It Total Volume/Area /67 Cu	(Print & Sign)
Client Information: Trime Trime	Analysis By (Print & Sign) Analysis Date & Time
Start Time End Time	Date & Time 24 1 07 Date & Time
Rate 0.41	1
Start Flow	
	78
By T426	18 Sign) 18 Sign)
Sampling By FAS Little Control Contro	Received By (Print & Sign) Time By (Print & Sign) Received By (Print & Sign)
Sam Faller	Receive Receive
Cation: Leading North	٥
Project Name & Location: A BLAG: For property Sample Location Sample Location Sample Location TA BLAG. Market Hall TA BLAG. Mar	Date & Tim
Sample Sa	
2 4 4 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	
Project A NTA NTA NTA NTA NTA NTA NTA NTA NTA N	ign)
	Relinquished By (Pript & Sign) Relinquished By(Print & Sign)
CSC Project # (014265) Sampling Area and/or E Sample # Date SAVA SAVA SAVA SAVA SAVA SAVA SAVA SAV	hed By (P.
Sampling Sample 1 33 1/1 2 34 1/1 2 36 1/4	

Clark Seif Clark- 21732 Devonshire Street, 2nd Floor, Chatsworth, CA 91311, Ph (818) 727-2553, Fax (818) 727-2556

APPENDIX



ASTM D5755 Results

MVA 5394

By:

W.Hill

Client project number:

Str/cm = No Str. X CFA X Total Vol.

Grid Op. X GO Area X Vol Filt X Area Sampled

	Grid Op.	X GO Area X Vol	Filt X Area	Sampled			
MVA #:	S0934	Client #:	32.VA				
Str. #	CFA	#GO	Area GO	Vol Filt ml	Total Vol.	Area Samp.	
33	1256	10	0.009	0.1	100	100	
Anal. Sen	s =	139555.556	Str/CM2	LOD =3* A	nal. Sens =	<u>418666.667</u>	
Total =	•	4605333.333	Str/CM2				
##1 / A .//	00005						
MVA#:	S0935	Client #:	33.VA	1 1			
Str.#	CFA	#GO	Area GO		Total Vol.	Area Samp.	
19	1256	10	0.009	0.1	100	100	
Anal, Sen	e =	139555.556	StriCMO	LOD =3* A	nal Cama —	440000 007	
Total =	~			LOD -3 A	nai. Sens –	<u>418666.667</u>	
iotai =		2651555.556	Str/CM2				
MVA #:	S0936	Client #:	34.VA				
Str.#	CFA	#GO	Area GO	Vol Filt ml	Total Vol.	Area Samp.	
25	1256	10	0.009	0.1	100	100	
						,	
Anal. Sens	s =	139555.556	Str/CM2	LOD =3* Anal. Sens =		418666.667	
Total =		3488888.889	Str/CM2				
MVA #:	S0937	Client #:	35.VA				
Str. #	CFA	#GO	Area GO	Vol Filt mi	Total Vol.	Area Samp.	
20	1256	10	0.009	0.01	100	100 **	
Amel Com		4005555 550	0. (0) 10				
Anal. Sens	; =	1395555.556		LOD =3* Ar	ıal. Sens =	<u>4186666.667</u>	
Total =		27911111.111	Str/CM2				
MVA #:	S0938	Client #	00.174				
T	·	Client #:	36.VA				
Str. # 10	CFA	#GO	Area GO	·	Total Vol.	Area Samp.	
10	1256	10	0.009	0.01	100	100 **	
Anal, Sens	; =	1395555.556	Str/CM2	LOD =3* An	al Sens =	<u>4186666.667</u>	
			Jan Jing	U A	ouijo -	7100000.007	

^{*} According to ASTM D6620

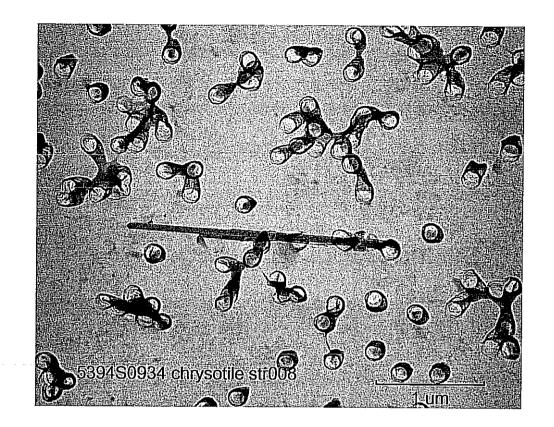
Str/CM2

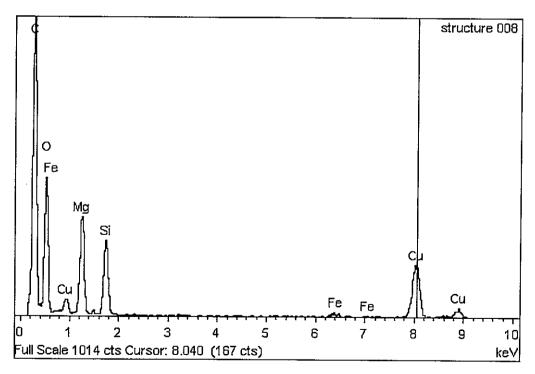
13955555.556



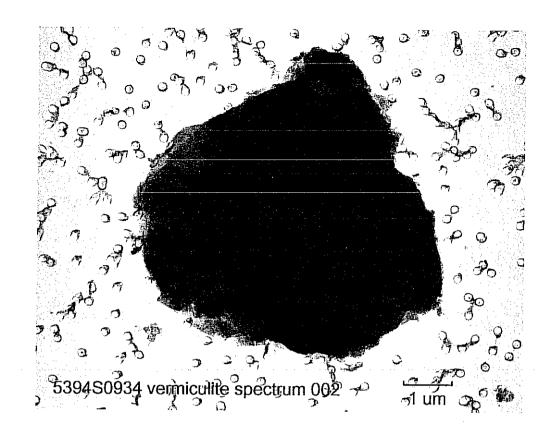
Total =

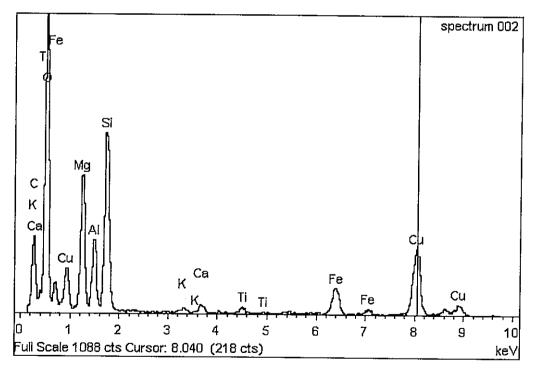
^{**} Assumed (Sample Area was not indicated on the original chain of custody)



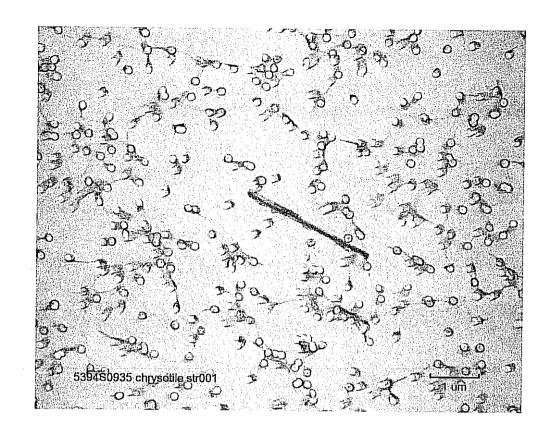


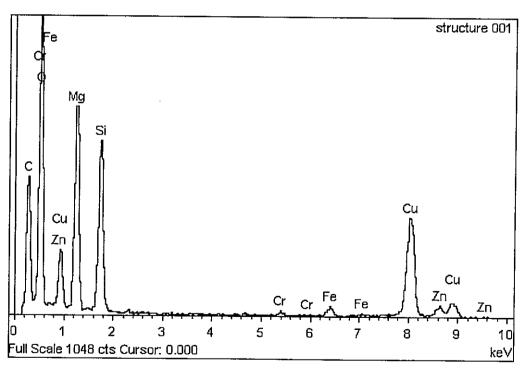




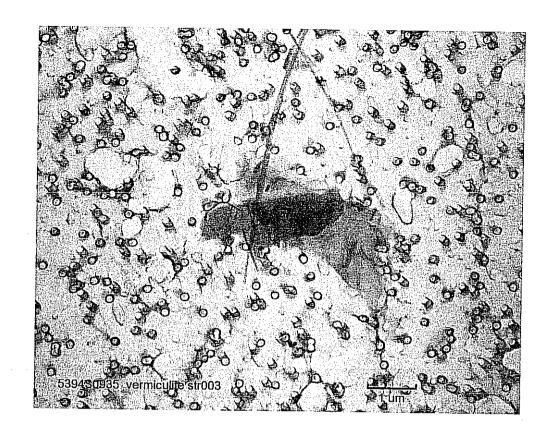


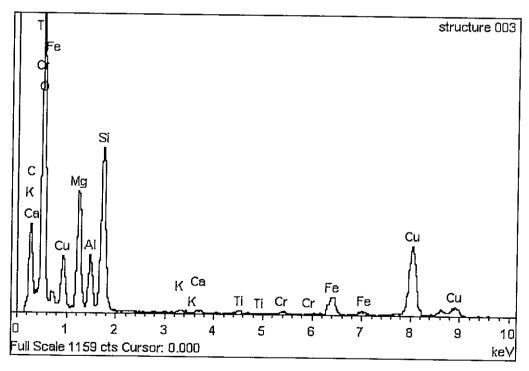




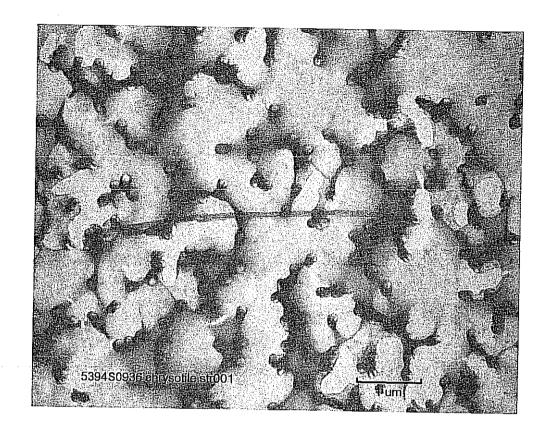


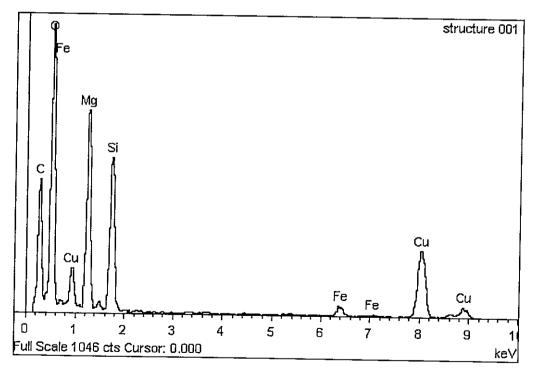




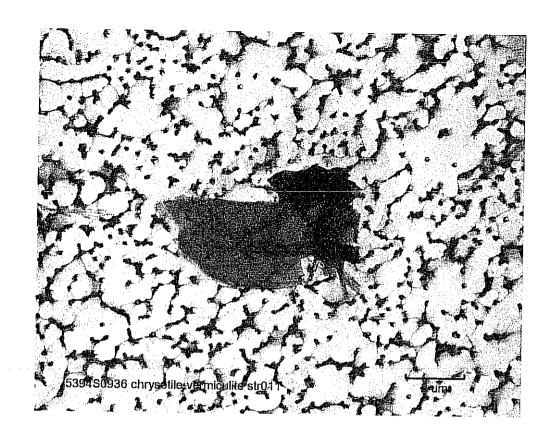


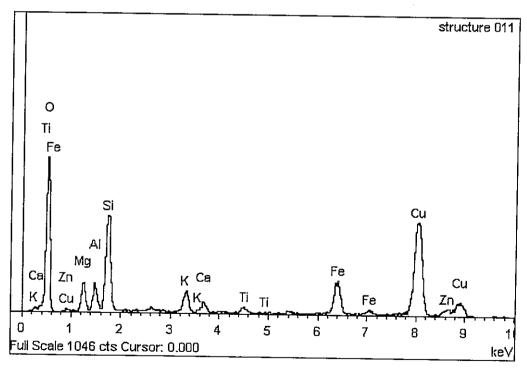




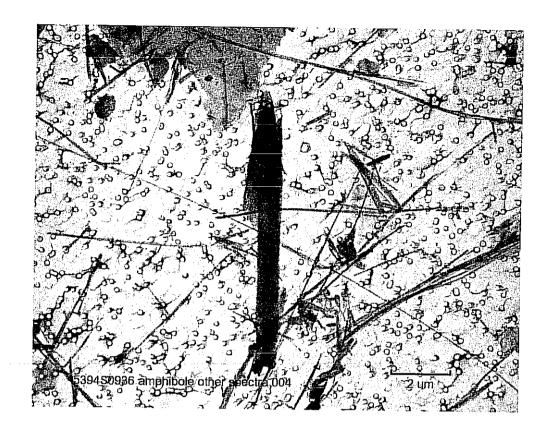


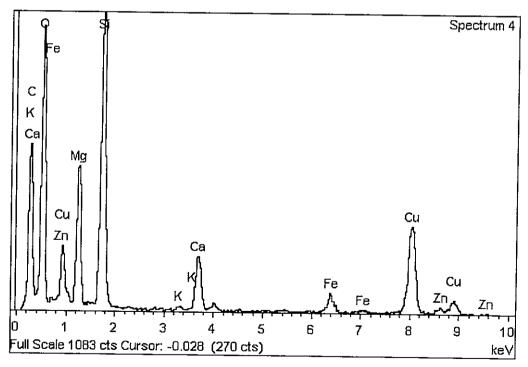




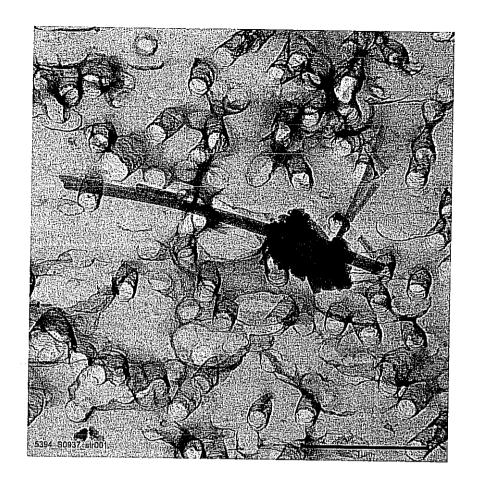


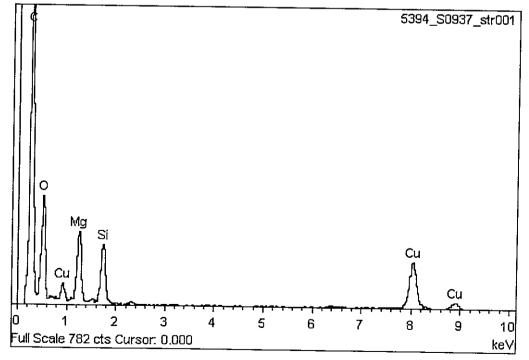




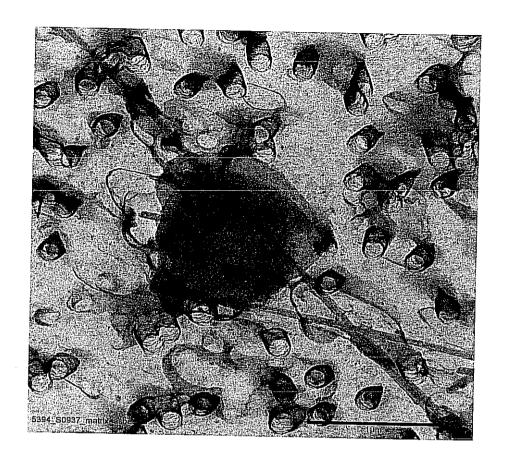


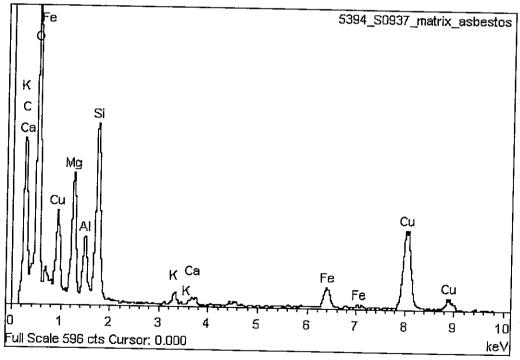




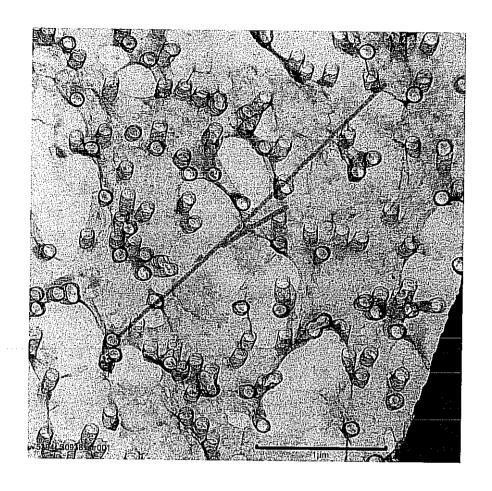


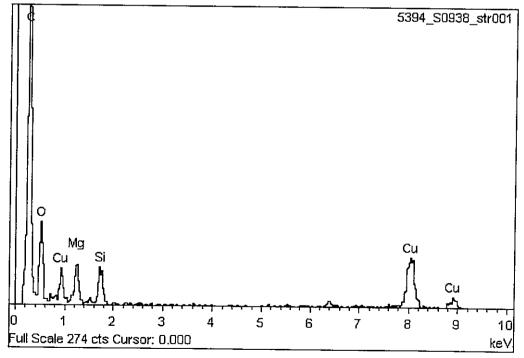




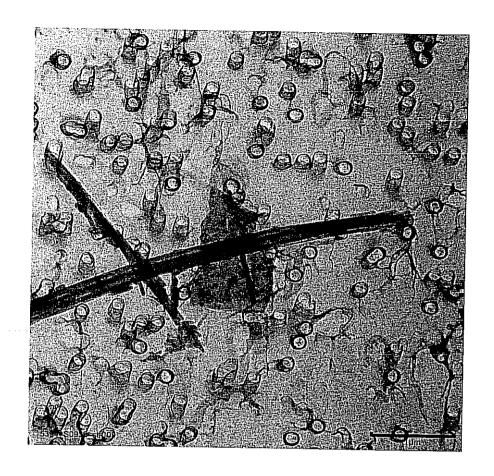


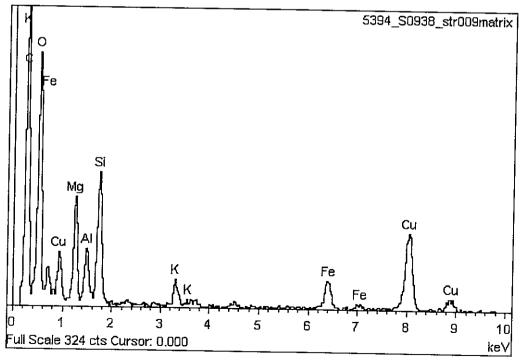














Case 01-01139 MANA SciENATOF 17 07 ON SUL FAIRE 10/16/07 Page 18 of 40

Surface Dust Sample Analysis Sheet

			many one entert			
MVA Project#_	5394	Amt Collected(cm ²):	100	Analyst:	АН	
MVA Sample#	S0934	Amt Prepped(cm ²):	0.1	Date:	8/22/2007	7
Client I.D.:	32VA	Filter Area (mm²):	1256	Page:	1 of 1	
Instrument: Pl	nilips 420	Filter Type:	PC 0.2	Comments:		
Magnification:	20,600	Openings Analyzed:	10	ASTM Method: [26480	
Acc. Voltage: _	100	Grid Opening (mm ²):	0.009	or [05755	X

Grid	Opening	Structure Number*	Structure Type	Length** (cm)	Width** (cm)	SAED	EDS	Comments	Length***	Width***
1	E6	1	F	6	0.2	C	С	Comments	(μm) 2.9	(μm) 0.10
		2	F	13.0	0.2	C	_		6.3	0.10
		3	F	11.0	0.2	C			5.3	0.10
		4	F	2.5	0.1	C			1.2	0.10
	C7	5	F	135.0	0.2	С			65.5	0.10
		6	F	72.0	0.2	C			35.0	0.10
	B4	7	F	24.0	0.1	С			11.7	0.05
		8	F	5.5	0.2	С			2.7	0.10
		9	F	4.0	0.1	С			1.9	0.05
		10	F	38.0	0.1	С			18.4	0.05
		11	В	16.0	0.3	С			7.8	0.15
	D2	12	F	27.0	0.2	С			13.1	0.10
		13	С	8.0	2	С			3.9	0.97
		14	F	16.0	0.2	С	_		7.8	0.10
		15	F	12.0	0.2	С			5.8	0.10
		16	С	22.0	3	С	· · ·		10.7	1.46
		17	В	11.0	0.4	С			5.3	0.19
	G4	18	F	46.0	0.2	С			22.3	0.10
		19	F	9.0	0.2	С			4.4	0.10
		20	F	10.0	0.1	С			4.9	0.05
		21	F	31.0	0.2	С			15.0	0.10
2	H5	22	C	25.0	4	С			12.1	1.94
		23	F	8.0	0.2	С	1		3.9	0.10
		24	В	26.0	0.4	С			12.6	0.19
	13	25	В	12.0	0.6	С			5.8	0.29
	G2	26	С	12.0	2.5	С			5.8	1.21
		27	F	5.0	0.2	С			2.4	0.10
	E4	28	F	15.0	0.2	С			7.3	0.10
		29	В	6.0	0.3	С			2.9	0.15
	C5	30	F	15.0	0.2	С			7.3	0.10
		31	F	12.0	0.2	С			5.8	0.10
.		32	F	38.0	0.2	С			18.4	0.10
		33	С	12.0	11	С			5.8	0.49

^{*}NFD or NSD = No Fibers Detected or No Structures Detected

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibole

^{**} On Screen Measurement

^{***} Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

Case 01-011307/AMCENTRIC 1707/34/BTANTIS 10/16/07 Page 19 of 40 Surface Dust Sample Analysis Sheet

MVA Project#_	5394	Amt Collected(cm ²):	100	Analyst:	AH	
MVA Sample#_	S0935	Amt Prepped(cm²):	0.1	Date:	8/23/2007	7
Client I.D.:	33VA	Filter Area (mm²):	1256	Page:	1 of 1	
Instrument: P	hilips 420	Filter Type:	PC 0.2	Comments:		
Magnification:	20,600	Openings Analyzed:	10	ASTM Method:	D6480	
Acc. Voltage:	100	Grid Opening (mm²):	0.009	ог	D5755	X

Acc. voltage:		100	100		Grid Opening (mm ⁻): 0.009			-	X	
Grid	Opening	Structure Number*	Structure Type	Length** (cm)	Width** (cm)	SAED	EDS	Comments	Length*** (µm)	Width*** _(µm)
1	13	1	С	11	5	С	- с		5.3	2.43
		2	С	4.5	0.2	С	1		2.2	0.10
		3	М	18.0	7	С		CHRY-VERM	8.7	3.40
	G2	4	F	16.0	0.2	С			7.8	0.10
		5	C	5.0	1	С			2.4	0.49
	D2	6	С	8.0	1.5	С		-	3.9	0.73
		7	В	18.0	1.2	С			8.7	0.58
		8	F	10.0	0.2	С			4.9	0.10
	B4	9	С	7.0	3	С			3.4	1.46
	E6	10	F	6.0	0.2	O			2.9	0.10
		11	В	5.5	0.3	C			2.7	0.15
2	12	12	F	32.0	0.2	Ċ	_		15.5	0.10
-		13	F	6.0	0.1	C			2.9	0.05
	G1	14	F	4.0	0.2	С			1.9	0.10
:	E6	15	F	11.0	0.2	С			5.3	0.10
	G10	16	F	9.0	0.2	С			4.4	0.10
	G7	17	F	18.0	0.2	С			8.7	0.10
		18	F	16.0	0.2	С			7.8	0.10
		19	F	17.0	0.2	С			8.3	0.10
						·				

^{*}NFD or NSD = No Fibers Detected or No Structures Detected

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibole

^{**} On Screen Measurement

^{***} Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

Case 01-01139MAM/SCIEDOUF 1C7CO/ASBILT FINE 10/16/07 Page 20 of 40 Surface Dust Sample Analysis Sheet

MVA Project#_	5394	Amt Collected(cm ²):	100	Analyst:	АН		
MVA Sample#_	S0936	Amt Prepped(cm²):	0.1	Date:	8/28/2007	7-8/29/2007	
Client I.D.:	34VA	Filter Area (mm²):	1256	Page:	1 of 1		_
Instrument: P	hilips 420	Filter Type:	PC 0.2	Comments:	0.1 ML A	NAL.	
Magnification:	20,600	Openings Analyzed:	10	ASTM Method:	D6480		
Acc. Voltage: _	100	Grid Opening (mm²):	0.009	or	D5755	X	

Grid	Opposing	Structure	Structure	Length**	Width**	0.455	ED0		Length***	Width***
	Opening	Number*	Туре	(cm)	(cm)	SAED	EDS	Comments	(µm)	(µm)
1	F4	1	F	9	0.2	С	С		4.4	0.10
 		2	F	11.0	0.2	С			5.3	0.10
 		3	F	12.0	0.2	С			5.8	0.10
	D5	4	F.	30.0	0.2	С			14.6	0.10
		5	F	9.0	0.1	С			4.4	0.05
<u> </u>		6	С	12.0	3.5	С			5.8	1.70
<u> </u>	C2	7	F	19.0	0.2	С			9.2	0.10
		8	F	6.0	0.1	С			2.9	0.05
	B5	9	F	14.0	0.2	С			6.8	0.10
	<u> </u>	10	F.	38.0	0.2	С			18.4	0.10
		11	М	12.0	0.2	С			5.8	0.10
		12	F	7.0	0.2	С			3.4	0.10
		13	F	24.0	0.1	C.			11.7	0.05
	D7	14	F	17.0	0.2	С			8.3	0.10
		15	C	20.0	3.5	C			9.7	1.70
		16	F	45.0	0.1	С			21.8	0.05
		17	F	16.0	0.2	С			7.8	0.10
2	G3	18	F	8.0	0.2	С			3.9	0.10
	E4	NSD								
	C6	19	F	3.0	0.1	С			1.5	0.05
		20	F	7.0	0.1	С			3.4	0.05
	D8	21	F	6.0	0.2	С			2.9	0.10
		22	С	16.0	2	С			7.8	0.97
		23	С	11.0	2.5	С			5.3	1.21
	F9	24	F	9.0	0.2	С			4.4	0.10
		25	F	5.0	0.1	С			2.4	0.05
		-								
					· · ·					

^{*}NFD or NSD = No Fibers Detected or No Structures Detected

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibate

^{**} On Screen Measurement

^{***} Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

Case 01-01139WAMASCIEDONFICTOOMS9LTANES 10/16/07 Page 21 of 40 Surface Dust Sample Analysis Sheet

MVA Project#_	5394	Amt Collected(cm ²):_	100****	Analyst: WH			
MVA Sample#	S0937	Amt Prepped(cm²):	0.01	Date:	8/29/200	7	
Client I.D.:	35VA	Filter Area (mm²):	1256	Page:	1 of 1		
Instrument: P	hilips 120	Filter Type:	PC	Comments:	0.01ml		
Magnification:	24,000	Openings Analyzed:	10	ASTM Method:	D6480		
Acc. Voltage:	100	Grid Opening (mm²):	0.009	or or	D5755	X	

					· · · · · · · · · · · · · · · · · · ·			-	0. 20.00	
Grid	Opening	Structure Number*	Structure Type	Length** (cm)	Width** (cm)	SAED	EDS	Comments:	Length*** (µm)	Width*** (µm)
1	C6	1	F	6.0	0.1	С	С	photo	2.5	0.04
	D8	2	F	9.5	0.1	С			4.0	0.04
	F9	. 3	В	4.5	0.25	С			1.9	0.10
		4	F	3.0	0.1	С			1.3	0.04
		5	F	39.5	0.1	С			16.5	0.04
		6	F	6.5	0.2	С			2.7	0.08
		7	В	3.5	0.3	С			1.5	0.13
		8	С	4.0	2.5	С			1.7	1.04
		9	F	8.5	0.1	С			3.5	0.04
	G5	10	В	6.5	0.5	С			2.7	0.21
	H7	11	В	9.0	0.5	С			3.8	0.21
		12	F	5.0	0.1	С			2.1	0.04
2	G6	13	С	38.5	15.5	С			16.0	6.46
		14	F	10.1	0.1	С		,	4.2	0.04
	F4	15	F	5.5	0.1	С			2.3	0.04
	E2	16	В	6.0	0.2	С			2.5	80.0
		_17	F	8.0	0.1	С			3.3	0.04
	D7	18	F	32.5	0.2	C		"	13.5	0.08
	C9	19	С	63.5	5.5	C			26.5	2.29
		20	М	4.5	0.2	С			1.9	0.08
						_				
								·		

^{*}NFD or NSD = No Fibers Detected or No Structures Detected

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibole

^{**} On Screen Measurement

^{***} Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

^{****} Assumed (Amount Collected was not indicated on the original chain of custody)

Case 01-01139-AMC Doc 17074-3 Filed 10/16/07 Page 22 of 40 MVA SCIENTIFIC CONSULTANTS

Surface Dust Sample Analysis Sheet

MVA Project#	5394	Amt Collected(cm ²):	100****	Analyst:	WH		
MVA Sample#	S0938	Amt Prepped(cm²):	0.01	Date:	8/29/200	7	
Client I.D.:	36VA	Filter Area (mm²):	1256	Page:	1 of 1		
Instrument:	Philips 120	Filter Type:	PC	Comments:	0.01ml		
Magnification:	24,000	Openings Analyzed:	10	ASTM Method:	D6480		
Acc. Voltage:	100	Grid Opening (mm²):	0.009	<u> </u>	D5755	X	

Grid Opening Number* 1 B2 NSD A10 1 2 C10 3 4 H6 NSD I4 NSD 2 A1 5 6 B4 7 E3 8	F F C B B B B	(cm) 10.5 2.0 2.0 6.0	0.1 0.1 0.1 2.5	C C C	EDS C	Comments photo	(μm) 4.4 0.8 0.8	(μm) 0.04 0.04
A10 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	F C C B B	2.0 2.0 6.0	0.1 0.1	C	С	photo	0.8	0.04
2 C10 3 4 H6 NSD H4 NSD 2 A1 5 6 B4 7 E3 8	F C C B B	2.0 2.0 6.0	0.1 0.1	C			0.8	0.04
C10 3 4 H6 NSD 14 NSD 2 A1 5 6 B4 7 E3 8	F C B B	2.0 6.0	0.1	C			 	
4 H6 NSD H4 NSD 2 A1 5 6 B4 7 E3 8	С В В	10.0						0.04
H6 NSD 4 NSD 2 A1 5 6 B4 7 E3 8	В В В	10.0		:			2.5	1.04
14 NSD 2 A1 5 6	B B							
2 A1 5 6 B4 7 E3 8	B B						-	
6 B4 7 E3 8	B B		0.3	С			4.2	0.13
B4 7 E3 8	В	16.0°	0.2	С		**	6.7	0.08
E3 8		6.0	0.9	С			2.5	0.38
	В	4.0	0.3	С			1.7	0.13
1 16 9	В	12.5	0.6	С		photo	5.2	0.25
10	В	7.0	0.3	С		•	2.9	0.13
I10 NSD	" "							
								·
								•
					:	· ***		
	İ							
							·	
			<u></u>					
		-			:			
		1				1		

^{*}NFD or NSD = No Fibers Detected or No Structures Detected

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibole

^{**} On Screen Measurement

^{***} Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

^{****} Assumed (Amount Collected was not indicated on the original chain of custody)

EDS: C = Chrysotile, AM = Amosite, CR = Crocidolite, AC = Actinolite, AN = Anthophyllite, TR = Tremolite, N = Non Asbestos

Report of Results: MVA5394
Analysis of Settled Dust
Conservation Center

Prepared for:

State of California Dept of General Services Seismic & Special Programs 707 West 3rd St. West Sacramento, CA 95605

Respectfully Submitted by:

Tim B. Vander Wood, Ph.D. Executive Director

MVA Scientific Consultants 3300 Breckinridge Boulevard Suite 400 Duluth, GA 30096

29 August 2007



Report of Results: MVA5394

Analysis of Settled Dust - Conservation Center

Introduction

On 1 August 2007, we received four settled dust samples from Clark Sief Clark, reportedly collected from the Conservation Center, 511 Byrnes Ferry Rd, Jamestown, California. We were asked to determine the asbestos levels in the dust and possible sources for the asbestos. Upon receipt, the samples were assigned MVA Scientific Consultants laboratory identification numbers as follows:

Sample ID	Sample Description	MVA Number
42VA	Hallway-bet Rm 129 & 184,	
	Ceiling hatch-surface	S0944
43VA	Hallway-across from Rm 182,	
	Ceiling hatch-surface	S0945
44VA	Hallway-across from Rm 147,	
	Ceiling hatch-surface	S0946
45VA	Visitor's hall, ceiling hatch surface	S0947

All analyses were carried out in our laboratory during the period 1 August through 29 August 2007.

Methods

The samples were analyzed according to ASTM Method D5755-03 using either a Philips model EM420 or a Philips model CM120 transmission electron microscope (TEM), equipped with an Oxford INCA energy dispersive x-ray spectrometer (EDS). Additional analyses for dust constituents that might serve as source indicators were also conducted by TEM/EDS.

Results and Discussion

The results of analysis for these samples are presented in Table 1. The Appendix contains a summary of the analytical results, the laboratory count sheets, and images and EDS spectra of typical asbestos fibers found in these samples. Also contained in the appendix are images and spectra showing matrix associated with chrysotile fibers.



Conclusions

Dust analyzed in this study contains elevated levels of chrysotile asbestos. Portions of the dust are consistent with derivation from a chrysotile/vermiculite bearing fireproofing.

Table 1. Asbestos Concentration in Settled Dust Samples

Sample ID	MVA Number	Asbestos Str/cm ²
42VA	S0944	237,244
43VA	S0945	139,556
44VA	S0946	446,578
45VA	S0947	237 244

Chain of Custody-TEM Micro-Vacuum

mal (48hr)	Water
Nor	Bulk
One Day (24hr)	(Surface)
Same Day	Air
Requested TAT (Circle One)	Analysis Type (Circle One)

<u> </u>		Ca	se 0	1₁01։	1 <mark>39-</mark> /	MÇ -	L D oc	170	74-3	File	d 10/ :	16/07	Pa	ge 2	7 of 4	PΤ	
Total Pages					Type of Analysis	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1											
Page #			20		Total Volume/Area	1 (50 cm		1					1	1	•	rint & Sign)	& Time
ue	Client Information	8	mo		Total Time	Zwiz										Analysis By (Print & Sign)	Analysis Date & Time
1 45	1. 46.0 J		(slend		Start Time End Time											Date & Time	Date & Time
# of Samples	+				Start Flow Rate End Flow Rate	10.91										4146	7
By) da	Pump #	3	جا_									1 & Sign)	(& Sign)
Sampling By	242			ation B		84 129 LIB	Gram Pan 182	Jan Bus Ve	Wig Hatel							Η̈́	Received By (Print & Sign)
Claim #	Project Name & Location:	-		Admushatin	Sample Location	ng pag - h	1- geness-	Later - Sy	ris Mall - G	1						Date & Time	1 · 2 l ·
	Projec	7	J.,	ding #:	1 t t t t t t t t t t t t t t t t t t t	an 11 m	11/20 24/11/20	the line	Visith				1	1 1 1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1	2 14 17.1	
CSC Project #	ンナなり	(ONSAND	5100 OP	Sampling Area and/or Building #:	e# Date	N-7.W.01	17. W.O.		1							Religiquished By Print & Stan)	Relinquished By (Print & Sigh)
	2			Samplir	Sample #	421	4307	V A 515	<u>US H</u>		1		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			Rollaguis	Relinquis

Clark Seif Clark- 21732 Devonshire Street, 2nd Floor, Chatsworth, CA 91311, Ph (818) 727-2553, Fax (818) 727-2556 www.csceng.com

ASTM D5755 Results

MVA 5394

By:

W.Hill

Client project number:

Str/cm = No Str. X CFA X Total Vol.

Grid Op. X GO Area X Vol Filt X Area Sampled

MVA #:	S0944	Client #:	42.VA				
Str. #	CFA	#GO	Area GO	Vol Filt ml	Total Vol.	Area Samp.	
17	7 1256	10	0.009	1	100	100	_

Anal. Sens =

13955.556

Str/CM2 LOD =3* Anal. Sens =

41866.667

Total =

237244.444

Str/CM2

MVA #:	S0945	Client #:	43.VA			
Str. #	CFA	#GO	Area GO	Vol Filt ml	Total Vol.	Area Samp.
10	1256	10	0.009	1	100	100

Anal. Sens =

13955.556

Str/CM2 LOD =3* Anal. Sens =

41866.667

Total =

139555.556

Str/CM2

MVA #:	S0946	Client #:	44.VA			
Str. #	CFA	#GO	Area GO	Vol Filt ml	Total Vol.	Area Samp.
32	2 1256	10	0.009	1	100	100

Anal. Sens =

13955.556

Str/CM2 LOD = 3* Anal. Sens =

<u>41866.667</u>

Total =

446577.778

Str/CM2

MVA #:	S0947	Client #:	45.VA			
Str.#	CFA	#GO	Area GO	Vol Filt mi	Total Vol.	Area Samp.
17	1256	10	0.009	1	100	100

Anal. Sens =

13955.556

Str/CM2 LOD = 3* Anal. Sens =

41866.667

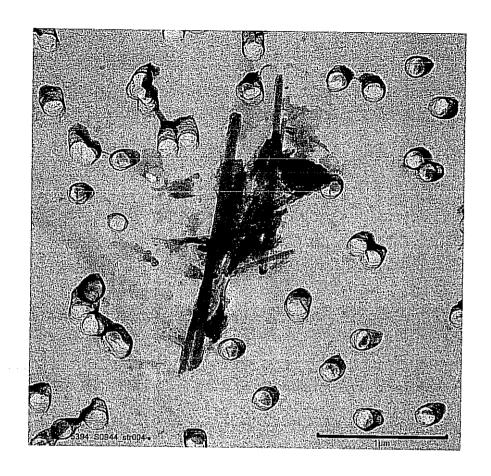
Total =

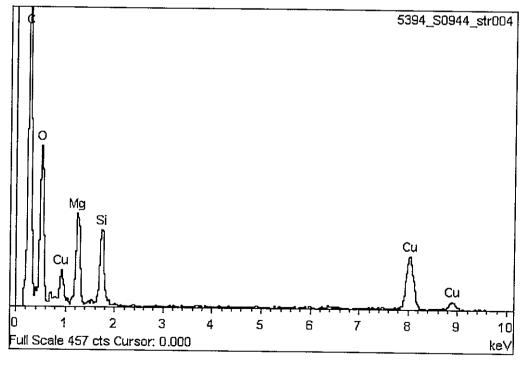
237244.444

Str/CM2

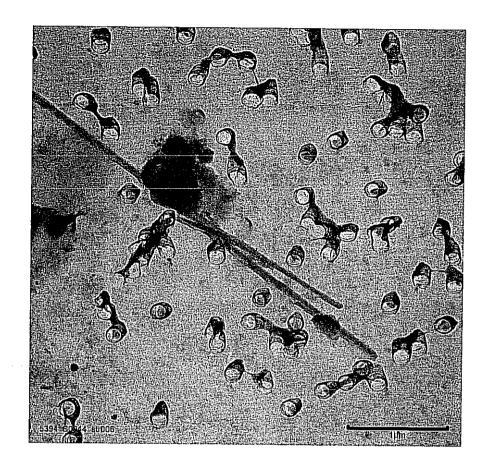


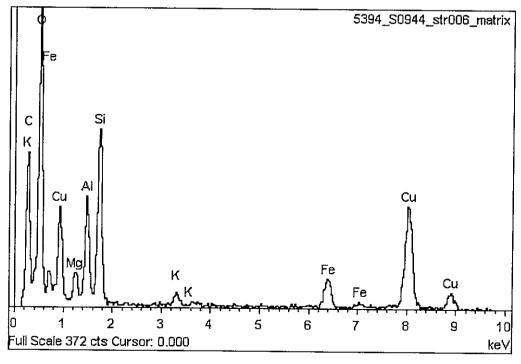
^{*}According to ASTM D6620



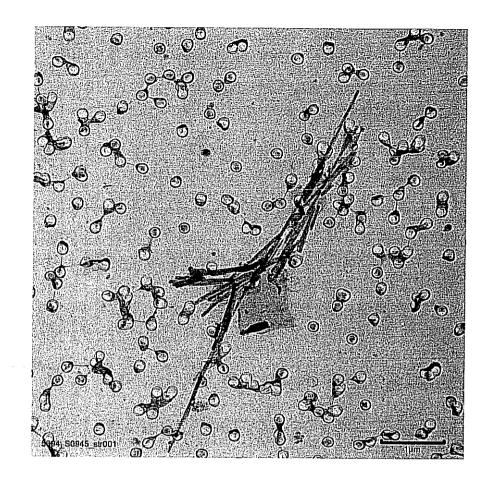


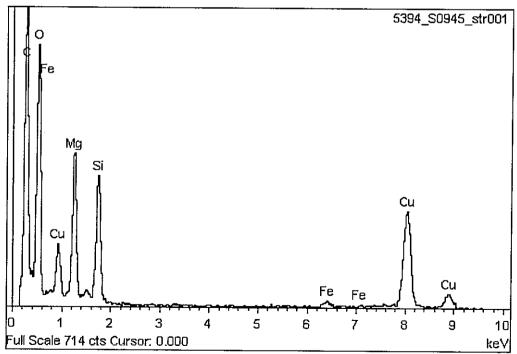




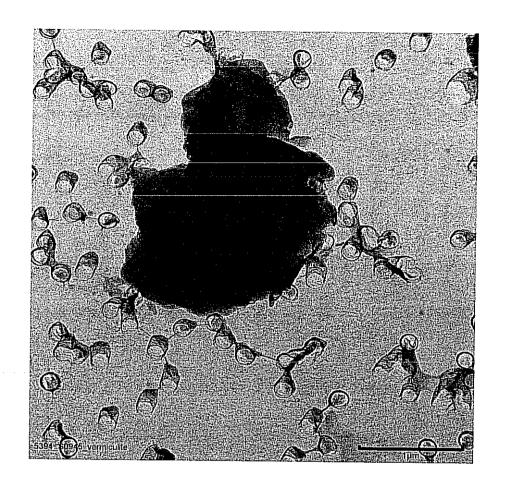


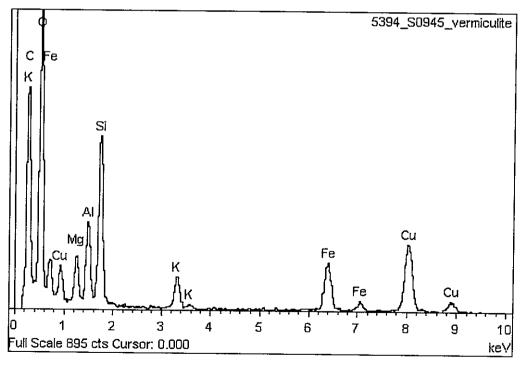




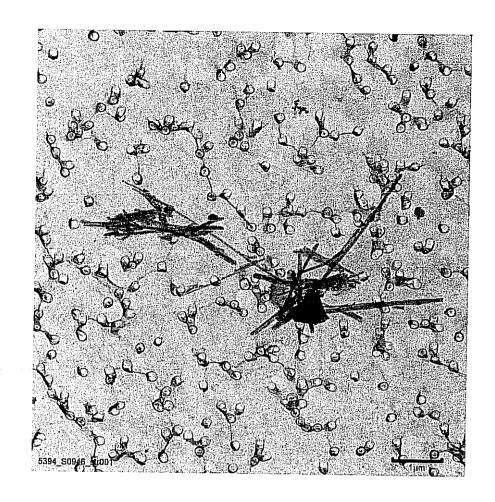


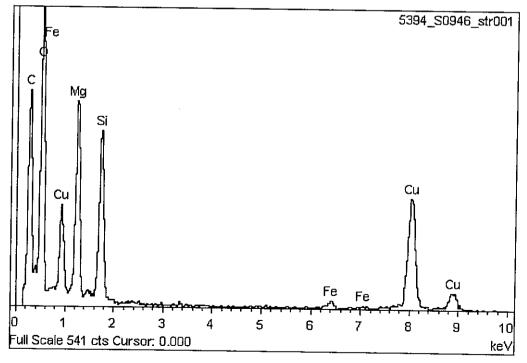




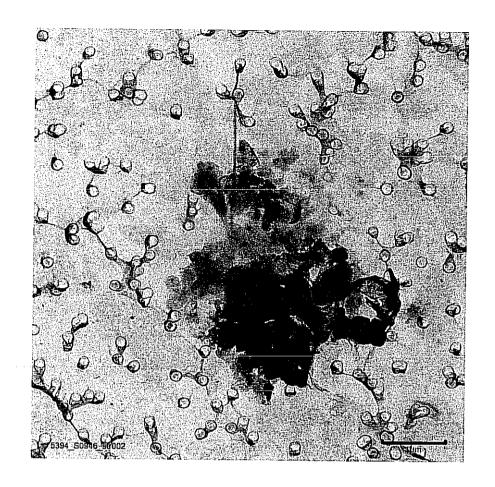


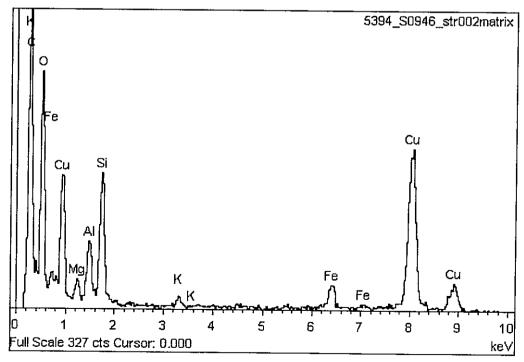




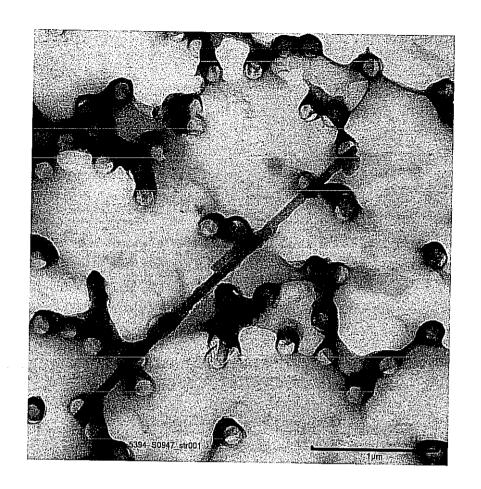


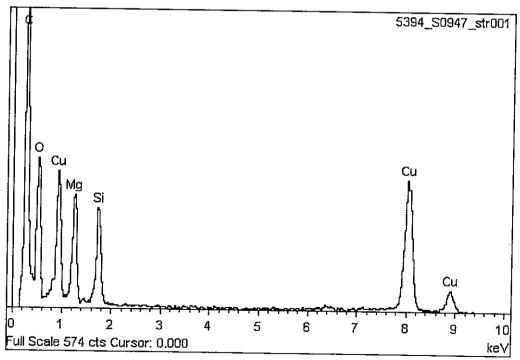




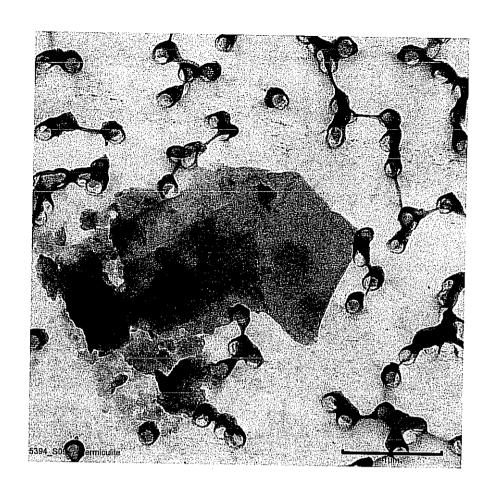


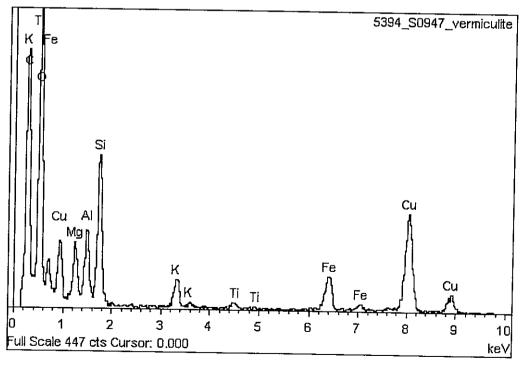














Case 01-01139-AMCsc/PNF1HC074n3uLFiled 10/16/07 Page 37 of 40

Surface Dust Sample Analysis Sheet

				9.	
MVA Project#_	5394	Amt Collected(cm ²):	100	Analyst: WH	
MVA Sample#_	S0944	Amt Prepped(cm²):	1	Date: 8/27/2007	7
Client I.D.:	42VA	Filter Area (mm²):	1256	Page: 1 of 1	
Instrument: P	hilips 120	Filter Type:	PC	Comments: 1ml	
Magnification:	24,000	Openings Analyzed:	10	ASTM Method: D6480	
Acc. Voltage:	100	Grid Opening (mm²):	0.009	or D5755	X

	•			•	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			-	01 1107 00	
Grid	Opening	Structure Number*	Structure Type	Length** (cm)	Width** (cm)	SAED	EDS	Comments	Length*** (µm)	Width*** (µm)
1	B2	1	F	3.0	0.1	С			1.3	0.04
		2	F	15.5	0.1	С	С		6.5	0.04
		3	F	2.5	0.1	С			1.0	0.04
	D8	4	С	5.6	1	С			2.3	0.42
		5	M	1.5	0.1	С			0.6	0.04
	E3	6	F	15.5	0.1	С	С	РНОТО	6.5	0.04
		7	F	1.5	0.1	С			0.6	0.04
	G1	NSD								0.0.
	J 9	8	В	35.5	1.5	С			14.8	0.63
2	C2	NSD								0.00
	B6	9	В	5.5	0.2	С			2.3	0.08
	1	10	С	4.0	1.2	С			1.7	0.50
	D8	11	В	21.5	0.3	C			9.0	0.13
	G4	12	F	3.6	0.1	С			1.5	0.04
		13	С	27.0	4.5	С			11.3	1.88
		14	С	16.0	7	C			6.7	2.92
		15	В	6.5	0.2	С			2.7	0.08
	15	16	F	45.0	0.1	С			18.8	0.04
		17	В	5.0	0.7	С			2.1	0.29
			[
										-
										-
								<u> </u>		
						_			_	
										
										
						 				
				-	-					•
						-				
					- -		— -		_	····
JED or N	ISO = No Cit	agre Detected a	n No Structure							

^{*}NFD or NSD = No Fibers Detected or No Structures Detected

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibole

^{**} On Screen Measurement

^{***} Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

Case 01-01139-MMCsciPppin42076N3ULFileds10/16/07 Page 38 of 40

Surface Dust Sample Analysis Sheet

				330			
MVA Project#	5394	Amt Collected(cm ²):	100	Analyst: \	VΗ		
MVA Sample#	S0945	Amt Prepped(cm ²):	1	Date: 8	3/29/200	7	
Client I.D.:	43VA	Filter Area (mm²):	1256	— – Page:	1 of 1		
Instrument: Ph	ilips 120	Filter Type:	PC	Comments: 1	ml		
Magnification:	24,000	Openings Analyzed:	10	ASTM Method: [
Acc. Voltage:	100	Grid Opening (mm²):	0.009	or [05755	X	

Grid	Opening	Structure Number*	Structure Type	Length** (cm)	Width** (cm)	SAED	EDS	Comments	Length*** (µm)	Width*** (µm)
1	C1	1	С	15.4	4.5	С	С	photo	6.4	1.88
	B5	NSD						, , , , , , , , , , , , , , , , , , ,	<u> </u>	1.00
	E2	2	F	6.5	0.15	С	 		2.7	0.06
	F4	3	F	6.0	0.1	С			2.5	0.04
	G6	4	М	1.7	0.1	С			0.7	0.04
2	D7	NSD	<u> </u>						0.7	0.04
	C4	5	M	4.5	0.1	С			1.9	0.04
		6	F	6.4	0.1	С			2.7	0.04
	E2	NSD							21	0.04
	G3	7	В	13.0	2	С			5.4	0.83
		8	F	5.5	0.1	C			2.3	0.04
		9	F	2.5	0.1	C			1.0	0.04
	15	10	M	9.0	0.1	C			3.8	0.04
					3.1				3.0	0.04

		···								
					-			,		
 										
 										
<u> </u>		·								
				<u> </u>						
 										
<u> </u>										

^{*}NFD or NSD = No Fibers Detected or No Structures Detected

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibole

^{**} On Screen Measurement

^{***} Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

Case 01-01139-MMCsciPonAcCothSulFileds10/16/07 Page 39 of 40

Surface Dust Sample Analysis Sheet

MVA Project# 5394	Amt Collected(cm ²):	100	Analyst: WH			
MVA Sample#S0946_	Amt Prepped(cm ²):	1	Date: 8	3/29/2007	,	
Client I.D.: 44VA	Filter Area (mm²):	1256	Page:	1 of 1		_
Instrument: Philips 120	Filter Type:	PC	Comments: 1	mi		_
Magnification: 24,000	Openings Analyzed:	10	ASTM Method: D	6480		_
Acc. Voltage: 100	Grid Opening (mm²):	0.009	or D	05755	X	

Grid	Opening	Structure Number*	Structure Type	Length** (cm)	Width** (cm)	SAED	EDS	Comments	Length*** (µm)	Width** (µm)
1	14	NSD								
	H2	1	С	17.5	10	С	C	photo	7.3	4.17
		2	M	2.5	0.1	С		photo	1.0	0.04
		3	В	37.0	1.5	С			15.4	0.63
		4	В	8.0	0.2	С			3.3	0.08
	F1	5	С	12.5	5	С			5.2	2.08
		6	F	20.0	0.1	С			8.3	0.04
		7	F	9.5	0.1	O			4.0	0.04
	D6	8	С	21.0	2.5	С			8.8	1.04
		9	F	7.0	0.1	С			2.9	0.04
_	-	10	F	3.5	0.15	С			1.5	0.06
	B1	11	F	28.5	0.1	С	T		11.9	0.04
_		12	В	6.0	0.9	С			2.5	0.38
		13	В	17.5	2.5	С			7.3	1.04
2	B2	14	М	21.0	0.1	С			8.8	0.04
		15	F	11.5	0.2	С			4.8	0.08
		16	В	11.0	1.6	С			4.6	0.67
		17	F	1.5	0.1	С		-	0.6	0.04
	A4	18	С	11.0	7	С			4.6	2.92
		19	F	1.9	0.2	С			0.8	0.08
		20	В	25.0	0.4	С			10.4	0.17
		21	F	2.1	0.1	С			0.9	0.04
		22	В	13.0	0.4	С			5.4	0.17
	E3	23	В	9.0	0.5	C			3.8	0.21
		24	F	5.0	0.15	С			2.1	0.06
		25	В	41.5	1.5	С			17.3	0.63
		26	F	2.6	0.1	С			1.1	0.04
	F7	27	М	3.0	0.1	С			1.3	0.04
		28	F	25.5	0.1	С			10.6	0.04
		29	F	25.0	0.1	С			10.4	0.04
		30	М	10.5	0.1	c			4.4	0.04
		31	F	3.7	0.1	С			1.5	0.04
		32	В	6.5	0.25	c			2.7	0.10
	15	NSD							£!	0.10

^{*}NFD or NSD = No Fibers Detected or No Structures Detected

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibole

^{**} On Screen Measurement

^{***} Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

Case 01-01139-AMA SCHENTH 10760 ASU ETIRATE 0/16/07 Page 40 of 40

Surface Dust Sample Analysis Sheet

MVA Project#	5394	Amt Collected(cm ²):	100	Analyst:	WH	
MVA Sample# 5	50947	Amt Prepped(cm²):	1	Date:	8/29/200	7
Client I.D.:	45VA	Filter Area (mm²):	1256	– Page:	1 of 1	
Instrument: Philip	s 120	Filter Type:	PC	Comments:	1ml	
Magnification: 2	4,000	Openings Analyzed: _	10	ASTM Method:	D6480	* '
Acc. Voltage:	100	Grid Opening (mm²):	0.009	or	D5755	X

		Di	Dtt		140 411					
Grid	Opening	Structure Number*	Structure Type	Length** (cm)	Width** (cm)	SAED	EDS	Comments	Length*** (µm)	Width*** (µm)
1	B2	1	F	7.0	0.1	С	C	РНОТО	2.9	0.04
	C6	2	С	6.5	1	C			2.7	0.42
	D8	3	F	10.0	0.1	С			4.2	0.04
	F7	4	F	6.0	0.1	С			2.5	0.04
	J4	5	F	42.5	0.1	С			17.7	0.04
2	J1	6	F	2.2	0.1	С			0.9	0.04
		7	В	16.0	0.4	С			6.7	0.17
		8	F	10.6	0.1	С			4.4	0.04
	H9	NSD								
	F2	9	F	2.5	0.1	С			1.0	0.04
		10	F	2.6	0.1	С			1.1	0.04
		11	С	5.6	4	С			2.3	1.67
	D5	12	В	9.0	1.1	С			3.8	0.46
		13	F	7.5	0.1	С			3.1	0.04
	C2	14	F	14.5	0.1	С			6.0	0.04
		15	F	3.0	0.1	С			1.3	0.04
		16	В	3.5	0.2	С			1.5	0.08
		17	F	3.5	0.1	С			1.5	0.04
						=				
]			
<u> </u>								-		

^{*}NFD or NSD = No Fibers Detected or No Structures Detected

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibole

^{**} On Screen Measurement

^{***} Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)